

Today's Lesson: To use cubes to determine which numbers from 1-20 are even and which are odd.

CCSS

Operations and Algebraic Thinking, 2nd Grade. (Determine whether a group of objects has an odd or even number of members.) 2.OA.3

**Focus Lesson 1
(I do)**

"We have used cubes for all different purposes. We have used cubes to add, subtract, measure, etc. Today we are going to use cubes to determine whether numbers are odd or even."

Begin the lesson by making a connection. *"We have learned about doubles facts. We know that learning our doubles is a strategy to help us when we are adding and subtracting. Remember that doubles facts have two addends that are the same number."*

Let children share different doubles facts that they remember. As children are sharing doubles facts that they know, write the facts on the whiteboard or chart paper. Pick one of the double facts that the students listed. Then demonstrate for the students how to show this fact with cubes. *"I am going to show you what the double '4+4=8' looks like with cubes."*

The teacher will then hold up 4 connected cubes in one hand, and 4 connected cubes in the other hand. *"We know that all even numbers (8 for this example) can be shown as two equal parts. Odd numbers can't be shown as two equal parts."*

The teacher will then write the problem '4 +5=9' on the board. The teacher will hold up 4 connected cubes in one hand, and 5 connected cubes in the other hand. The teacher will show the students that odd numbers (9) can't be shown as 2 equal parts.

Round of Daily 3 Math

**Focus Lesson 2
(We do)**

(The teacher will need approximately 20 cubes for each pair of students and a basket with numbers 1 -20 available for students to choose.)

The teacher needs to ask students the following question:
"Who can tell me which numbers from 1-20 are even numbers, and which numbers are odd numbers?" The teacher will then tell the children that we will work together to find the answer.

"You are going to work with a partner to figure out the answer to this question. Each pair will draw a number out of the basket. You will also be given a set of cubes. One person will count out the number of cubes that you chose. Then you will work together to see if your number can be separated into two equal parts. We will share our answers with the group when you have all finished."

Give students time to choose their number, count out the cubes, and work with their partner. *"Before we share with the class, you and your partner need to be able to explain and prove why your number is odd or even."* (Students will quickly discuss with an elbow



buddy.) Have pairs of students share with the class what their number was, and if it was odd or even.

*Discussion should follow about patterns made by even and odd numbers. The teacher should also remind students that the patterns (0, 2, 4, 6, 8) can be used for determining odd and even numbers greater than 20.

Round of Daily 3 Math

Focus Lesson 3 (You do)

Give each child a piece of paper and a set of 20 cubes. Write the numbers 3, 7, 13, and 19 on the board or chart paper. Have the students write the number on their paper. They will then separate their cubes to determine whether the number is odd or even. Then have students draw a picture of their towers of cubes beside the number they wrote.

*Extension could be to give students numbers higher than 20. Students could explain why the number is odd or even, instead of drawing a picture of the cubes.

Student Sharing

